

ABBREVIATIONS AND ACRONYMS

A

α : absorptivity
 A_c : area of surface contact
 A_D : Dubois body surface area
 ADEA: US Army Development and Employment Agency
 ADHD: attention-deficit hyperactivity disorder
 AEST: Australian Eastern Standard Time
 AFCCC: Air Force Combat Climatological Center
 AIS: Abbreviated Injury Scale
 AKO: Army Knowledge Online
 ALICE: All-Purpose Lightweight Individual-Carrying Equipment
 AMEDD: Army Medical Department
 ANAM: Automated Neuropsychological Assessment Metric
 ANSI: American National Standards Institute
 ARDEC: Armament, Research, Development, and Engineering Center
 ASHRAE: American Society of Heating, Refrigerating, and Air-Conditioning Engineers
 ATBM: Advanced Total Body Model
 ATO: Army Technology Objective
 AVP: arginine vasopressin
 AVS: Aidman Vision Screener

B

BABTA: Body Armor Blunt Trauma Assessment
 BCC: basal cell carcinoma
 BDU: battle dress uniform
 BLPS: Ballistic and Laser Protective Spectacles
 BOP: blast overpressure
 BTM: Blast Test Device

C

C: convection
 c_b : heat of body tissue
 CCO: crew coordination objective
 CET: corrected effective temperature
 CFD: computational fluid dynamics
 CHABA: Committee on Hearing, Bioacoustics, and Biomechanics
 CHO: carbohydrate
 CHPPM: US Army Center for Health Promotion and Preventive Medicine (US Army Public Health Command)
 CIVD: cold-induced vasodilation
 CMI: Cornell Medical Index
 CNS: central nervous system
 COIL: chemical oxygen iodine laser
 COTZ: Contains Only Titanium and Zinc (sun care product produced by Fallene Ltd, King of Prussia, Pa)
 CPG: Clinical Practice Guideline
 CSI: cold strain index
 CSLO: confocal scanning laser ophthalmoscopy
 CTM: cold thermal model

D

ΔS : change in storage
 ΔT_b : change in body temperature
 DA: data acquisition
 DCGS-A: Distributed Common Ground System–Army
 Diff: difference
 DLE: duration-limited exposure
 DLE1: duration-limited exposure based on heat storage
 DLE2: duration-limited exposure based on water depletion
 DoD: Department of Defense

DPM: Dynamic Physiological Model
 DRDC: Defence Research and Development Canada
 DSHEA: Dietary Supplement Health and Education Act of 1994
 DTIC: Defense Technical Information Center

E

E: evaporative heat loss
 ϵ : emissivity
 EEG: electroencephalogram
 EITACC: Equation Independent Transient Analysis Computer Code
 EKG: electrocardiogram
 ELTEP: Emerging Laser Threat Eye Protection
 EMG: electromyogram
 EMP: electromagnetic pulse
 EMS: eosinophilia-myalgia syndrome
 ERGO: Energy-Rich Glucose Optimized (drink)
 ESA: European Space Agency
 ET: effective temperature
 EXEMSI '92: Experimental Study for the European Manned Space Infrastructure, 1992

F

FACE: Functional Assessment of Care Environments
 FDA: US Food and Drug Administration
 FEM: finite element modeling
 FM 100 Hue: Farnsworth Munsell 100 Hue

G

GABA: γ -aminobutyric acid
 GI: gastrointestinal
 GPS: Global Positioning System

H

h_c : convective heat transfer coefficient
 HD: Humidex
 h_e : evaporative heat transfer coefficient
 HEAR: Health Enrollment/Evaluation Assessment Report
 HHA: Health Hazard Assessment
 HHI: heat humidity index
 HI: humidity index
 HIPPA: Health Insurance Portability and Accountability Act
 HMMWV: high-mobility multipurpose wheeled vehicle (or "Humvee")
 H_r : radiant field
 h_r : radiative heat transfer coefficient
 HRA: Health Risk Appraisal
 HSDA: heat strain decision aid
 5-HT1A: 5-hydroxytryptamine (serotonin) receptor 1A

I

IAC: information analysis center
 ICD-9-CM: *International Classification of Diseases, Ninth Revision, Clinical Modification*
 ICDA: initial capability decision aid
 IDEF: Integrated Definition
 IED: improvised explosive device
 i_m : water vapor permeability index
 IMETS: Integrated Meteorological System
 IND: Investigational New Drug
 IR: infrared
 IREQ: insulation index of required clothing

IRSF: intraretinal scar formation
ISEMSI '90: Isolation Study for the European Manned Space Infrastructure, 1990
ISS: Injury Severity Score
ITBM: Interim Total Body Model
IWEDA: Integrated Weather Effects Decision Aid

J

JLST: Joint US Army Materiel Command and the US Army Medical Research and Development Command Laser Safety Team (also known as J AMC-AMRDC LST)
JNLWD: Joint Non-Lethal Weapon Directorate
JNLWP: Joint Non-Lethal Weapon Program

K

K: conductance
kph: kilometers per hour

L

LAIR: Letterman Army Institute of Research
LBE: load-bearing equipment
LED: light-emitting diode
LFTP: Live Fire Test Program
LMB: Lasers on the Modern Battlefield (conference)
LR: Lewis relationship
LRRP: Long-Range Reconnaissance Patrol

M

M: metabolism
MAIS: Maximum Abbreviated Injury Scale
MANPRINT: Manpower and Personnel Integration
MEDEVAC: medical evacuation
M-Gator: Military Gator
MILES: Multiple Integrated Laser Engagement Simulator
MoHSM: mobile heat stress monitor
MOLLE: Modular Lightweight Load-Carrying Equipment
MOMRP: Military Operational Medicine Research Program
MOPP: Mission-Oriented Protective Posture (gear)
MOUT: Military Operations on Urban Terrain
MRE: Meals, Ready to Eat
MRI: magnetic resonance imaging
MRMC: US Army Medical Research and Materiel Command
MRS: magnetic resonance spectroscopy
MyWIDA: My Weather Impacts Decision Aid

N

NAA: *N*-acetylaspartate
NAMRL: Naval Aviation Medical Research Laboratory
NASA: National Aeronautics and Space Administration
NETPR: Neurotoxin Exposure Treatment (Parkinson's) Research
NHP: nonhuman primate
NHTSA: National Highway Traffic Safety Administration
NIDDK: National Institute of Diabetes and Digestive and Kidney Diseases
NIH: National Institutes of Health
NS: number of repeated exposures
NWS: National Weather Service

O

ω : skin-wettedness
OCT: optical coherence tomography
OD: oculus dexter (pertains to the right eye)
OEF/OIF: Operation Enduring Freedom/Operation Iraqi Freedom

OS: oculus sinister (pertains to the left eye)
OSHA: Occupational Safety and Health Administration
OTC: over the counter
OTV: outer tactical vest

P

P²NBC²: Physiological and Psychological Effects of the Nuclear/Biological and Chemical Environment on Systems and Sustained Operations
P4SR: predicted 4-hour sweat rate
PB: pyridostigmine bromide
PBPk: physiologically based pharmacokinetic (model)
PC: personal computer
PDA: personal digital assistant
PECS: Physical conditions, Emotional state, Cognitive capabilities, and Social status
PFB: pseudofolliculitis barbae
PHC: US Army Public Health Command (formerly CHPPM [US Army Center for Health Promotion and Preventive Medicine])
PIES: Proximity to battle (or assigned unit), and Immediately when symptoms were noted, with Expected return to duty within 72 hours, and with Simplicity
PM: Project Manager
PMB: papillomaculal bundle
PPA: phenylpropanolamine
PPE: personal protective equipment
Pr: Prandtl number
PRL: preferred retinal location
PSDA: Probability of Survival Decision Aid
PSM: (Warfighter) Physiological Status Monitor
PTSD: posttraumatic stress disorder
PVT: psychomotor vigilance task

R

R: radiation heat exchange
RAC: risk assessment code
 R_b : long-wave radiation
RCW: Ration, Cold Weather
RDA: Recommended Dietary Allowance
REM: rapid eye movement
RH: relative humidity
RNFL: retinal nerve fiber layer
RPE: retinal pigmented epithelium
 R_p : clothing vapor permeability resistance
RTD: resistance temperature device

S

SAFTE: Sleep, Activity, Fatigue, and Task Effectiveness
SCALP: Suit, Contamination Avoidance, Liquid Protective
SCC: squamous cell carcinoma
SCTM: six-cylinder thermoregulatory model
SEAL: (US Navy's) Sea, Air, and Land (team)
SEM: standard error of the mean
SMS: sleep management system
SNAP: Schedule for Nonadaptive and Adaptive Personality
SNOMED-CT: Systematized Nomenclature of Medicine—Clinical Terms
SOP: standard operating procedure
SPF: sun (solar) protection factor
 S_{req} : required sweat rate
SSBN: submersible ship ballistic missile, nuclear
SSN: submersible ship, nuclear
STANAG: Standardization Agreement
STRESS: Standardized Tests for Research with Environmental Stressors
SURVIAC: Survivability/Vulnerability Information Analysis Center

SWO: (US Air Force) Staff Weather Officer
SWS: slow-wave sleep

T

T_a : air temperature or dry bulb air temperature
TAP: Toxicological Agent Protective
 T_{bg} : black globe thermometer (also substituted globe temperature)
TBI: traumatic brain injury
 T_c : core temperature
 T_{cl} : mean clothing surface temperature
TGAS: Toxic Gas Assessment Software
TIE: total intraocular energy
TMM: *Textbooks of Military Medicine*
TNT: trinitrotoluene
 T_{nwb} : “naturally aspirated” wet bulb thermometer
 T_o : operative temperature
 T_{oh} : humid operative temperature
 T_r : radiant temperature
TRL: technology readiness level
 T_s : body surface temperature or skin/surface temperature
 T_{sk} : mean skin temperature
 T_{so} : standard operative temperature
 T_{soh} : standard humid operative temperature
 T_{wb} : wet bulb air temperature

U

URT: upper respiratory tract
USAARL: US Army Aeromedical Research Laboratory
USACHPPM: US Army Center for Health Promotion and Preventive Medicine (US Army Public Health Command)
USAMRD: US Army Medical Research Detachment
USAMRMC: US Army Medical Research and Materiel Command
USARIEM: US Army Research Institute of Environmental Medicine
USDA: US Department of Agriculture
UTC: Universal Time Code
UV: ultraviolet
UVA: ultraviolet light ray A
UVB: ultraviolet light ray B
UVR: ultraviolet radiation

V

VA: (Department of) Veterans Affairs
VV&A: validation, verification, and accreditation

W

WBGT: wet bulb global temperature
WCET: windchill equivalent temperature
WCI: windchill index
WCT: windchill temperature
WDI: wet-dry index
 W_k : work
WPSM: Warfighter Physiological Status Monitor
WRAIR: Walter Reed Army Institute of Research
WRE: Weather Running Estimate

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Top graphic: US Army Medical Research and Development Command, 1979–1994. Shoulder patch shows an upright sword surrounded by flames and the serpent from the medical caduceus.

Bottom graphic: US Army Medical Research and Materiel Command, 1994–present. When the command was renamed, a new emblem was created with the caduceus and the words “protect, project, sustain.”